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A case of non-alcoholic cirrhosis of the liver.

By D'ARCY POWER, M.B.

THE specimen which I bring before you to-night, Mr. President, belongs to an unusual, but not to a very rare class of cases. It is one of cirrhosis of the liver, occurring in a private person, who was known to have been a total abstainer for a very long period of time. The histories given by patients in cases of cirrhosis are more often than not fallacious, but in the present case the facts appear to be so clear that there is no reason to doubt that they are substantially correct.

The liver, as you will see, presents the ordinary characters of cirrhosis. It measures 9 inches in length by 5 inches at the widest part of its left lobe, whilst at its thickest part it is only 2 inches across. It weighs 29 oz. The surface is universally corrugated, and in parts presents a hob-nailed appearance. It is hard, and creaks under the knife on making a section; the organ appears pale. The gall-bladder is contracted, and was bound down to the liver substance by dense adhesions. It contains one large stone and several smaller ones. Microscopically the liver is infiltrated by a very vascular growth of small cells, which in many places has destroyed the lobules by a simple process of pressure, since the new connective tissue is entirely interlobular. The liver-cells, it is to be remarked, are normal, and have not undergone any fatty change such as is common in cases of ordinary cirrhosis, nor does there appear to be any abnormal quantity of pigment.

I am indebted for the history of the case, as well as for the specimen itself, to the kindness of Mr. Evan Alban. The liver occurred in the person of a clergyman aged 63, for a long time the vicar of a country parish, who for a period of thirty-seven years, says Mr. Alban, had been without the shadow of a doubt a total

abstainer from alcoholic drink. Before he became a teetotaler he had always been temperate, and all suspicion of syphilis could be entirely excluded. He had, however, a family history of gout. His medical attendant had known him for nine years, during the last five of which he suffered from attacks of hepatic colic, lasting for periods of a week or ten days at a time. During these attacks he became jaundiced and passed gall-stones. In the autumn of 1883 and in the early part of 1884 these attacks occurred once a month for a period of eight months. In the summer of 1884 the colic subsided, but the patient experienced symptoms of angina pectoris. After the first onset of anginous symptoms the hepatic colic never reappeared. The patient was doing duty away from home when ascites first set in, and he died six weeks after the fulness of the stomach had been observed. At the autopsy the heart, as well as the liver, was examined. The large arteries were found to be hard and atheromatous, this condition being very marked in the coronary vessels, which contained a quantity of mortar-like material. The mitral valves were atheromatous at the edges of the cusps, but the aortic valves were hardly affected. During life no murmur was heard. The kidneys were not examined. Mr. Alban further tells me that the patient had never been a great spice or curry eater, but that he was extremely fond of sugar, preserved fruits, jam, and pastry.

In this case it appears to me that the chronic irritation caused by the successive formation of gall-stones would be sufficient to account for the development of fibrous tissue in the liver. It is of interest, too, to observe that the liver-cells are not undergoing that fatty change which is so constant a concomitant of cirrhosis due to alcohol. So far as I can discover, the condition of the liver seen in this case most nearly resembles that which Ziegler describes as the result of biliary hepatitis, though it differs from his cases in having so small an amount of pigmentation.

November 5th, 1889.

Repair after rupture of the spleen and kidney.

By D'ARCY POWER, M.B.

R UPTURE of the abdominal viscera, especially of the spleen, kidney, and liver, are by no means of uncommon occurrence as a result of violence inflicted directly upon the abdominal walls. Cases of rupture of the spleen and liver have been repeatedly shown before the Society, but I am unable to find any instance of a ruptured kidney having been exhibited, a fact which no doubt is to be accounted for by the comparative frequency of the injury making the members think that it would not be of any very great interest.

The importance of the two specimens which I bring before you this evening, however, lies not so much in the mere fact of their rupture, as that they have undergone a very considerable amount of repair; indeed, to such an extent has this been the case, that if the patients had survived their other injuries these organs would eventually have served all their usual functions in the economy of the individuals to which they belonged.

The first specimen is the left kidney of a man aged 27 years, who fell off a scaffolding a distance of twenty-six feet. On his admission to St. Bartholomew's Hospital he was found to have fractured his skull and to have broken several of his ribs; he was unconscious. He subsequently suffered from surgical emphysema of his chest, and at a later period from gangrene of his lung. He survived the accident for eighteen days, and during this time, although he was conscious, he made no complaint of abdominal pain. His urine was drawn off on the day following the accident, and twice on the succeeding day; on each of these occasions a little blood was observed to be intimately mixed with the urine. On the third day after the accident there is a note made by the dresser of the case to the effect that the urine was acid; that it had a specific gravity of 1020; and that it contained neither albumin, sugar, nor blood.

I have made a longitudinal section of the kidney. It will be seen that the organ is of normal size, measuring four and a half inches in length by three inches in breadth. On one side it is lacerated from the hilum for a distance of an inch and a half into the cortex. The rupture is linear, and its edges in the upper or cortical portion are united by altered blood-clot, whilst the whole of the wound is covered by a thick layer of fat and cellular tissue which is rather firmly adherent to the capsule of the kidney. The anterior half of the organ shows a large hæmatoma also, extending in the transverse diameter of the organ from the hilum towards the cortex.

In the second case, a housewife, aged 42, upon an alarm of fire, threw herself out of a second-floor window and fell a distance of thirty feet. She too was admitted into St. Bartholomew's Hospital in an unconscious state; she had a simple fracture of the left femur, and her face and head were much bruised. Her urine which was drawn off the same evening was natural. Two days after the accident she became delirious, the delirium continuing for twenty-nine days. She subsequently developed cystitis and morbus cordis, and died in an exhausted condition ten weeks after the accident. On the second, third, and fourth days after her fall the temperature of the patient was subnormal; it rose to 101.2° F. on the sixth day, after which it again became subnormal, and so remained until the fifteenth day, when it rose and remained high until the patient's death.

At the autopsy the spleen was found to be torn upon its anterior and external surfaces. The rent passing quite through the organ and involving the capsule, it was closed by a firm white scar measuring an eighth of an inch in diameter. The outermost border of the spleen was still soft and lacerable; it tore when it was separated from the clot which lay above it, and it is for this reason that the preparation does not look as if it had undergone any very great amount of repair. The subperitoneal tissue was stained of a deep purple colour, evidently by an extravasation of blood which had taken place into it some time before death. There was also an encapsuled collection of blood, which had in great part remained fluid; it was situated immediately around the spleen. The kidneys were inflamed and congested, the pelves and calices being dilated. The bladder was much contracted, and contained purulent urine. In the heart the mitral valve was found to be

thickened and rigid, whilst the aortic valves were adherent and thickened.

In both these cases I think it is of interest to notice how slight must have been the hæmorrhage in comparison with the extent of the laceration. This slight amount of hæmorrhage is no uncommon feature in injuries of this nature, and there appear to be two explanations for it. In the first place, the capsule may not be torn through at the time of the laceration, though it may take place at a later period when the blood has perhaps had time to become coagulated, or, as is the more likely, when the mouths of the bleeding vessels have become blocked by clot. This explanation is not, however, a very satisfactory one to my mind when I recall for how long a time extravasated blood will remain in the various cavities of the body. A second and better explanation is, I think, afforded by the fact that the pressure of the organs is so considerable within the abdominal cavity that little if any blood can be at once effused, and that it is only after a time, and, as it were, little by little, that the blood oozes out and insinuates itself between the coils of intestine into a cavity which is already over-full. This explanation is, I think, the more probable when we reflect that in the particular class of cases with which I am at present dealing, the hæmorrhage is always either venous in character, or else that it is derived from arterioles. In those cases where the larger vessels are wounded, death from hæmorrhage very rapidly ensues; and this must of necessity be the case, for we know that even with an artery like the middle meningeal, which is comparatively small, sufficient force is exerted by the blood-stream to separate the dura mater from the calvaria, a force which would be far more than sufficient to make a space in the most tightly packed abdominal cavity. After intra-peritoneal rupture of the bladder the same kind of limitation appears to take place in regard to the urine, for it is said that in a considerable number of such cases a catheter can be passed through the rent in the walls of the organ, and the urine can be withdrawn almost completely from the peritoneal cavity.

Lastly, the specimens are of interest because they show how readily the viscera repair themselves after injury, for in both cases, as a result of the localisation of the blood, the ordinary processes of organisation have taken place, and union has occurred by secondary intention. The specimens also show how slight may be the

symptoms attending even an extensive injury of important viscera. In the case of the kidney the great laceration seen in the specimen was only attended by slight hæmaturia for two days, and was absolutely unaccompanied by pain. In the other case of the rupture of the spleen there was absolutely no reason to suppose during life that this organ had received any injury. I think that these two cases are worthy of record as they have well-authenticated histories, and they illustrate the process of repair which takes place, whilst at the same time they hold an intermediate position between those cases with which everyone is familiar, where death has followed very shortly after the laceration and as the direct result of it, and those rarer cases where the site of an old injury is marked by a white line or by a depressed scar. The specimens are preserved in the museum of St. Bartholomew's Hospital, Nos. 2308*a*, 2394*b*, 2394*c*.

February 4th, 1890.

The varying effects of violence in producing fractures.

By D'ARCY POWER, M.B.

THE specimens which I have brought here to-night, Mr. President, show in a very excellent manner the method in which the same degree of violence applied to two similar joints may cause very different forms of fracture. These bones formed part of the knee-joints of a man aged 23, who leaping out of a fifth-floor window fell upon a pavement, and sustained such injuries that he died an hour and a half after his admission to St. Bartholomew's Hospital. The man appears to have fallen upon his knees. The right femur is comminuted in its lower third, the posterior part of the shaft being more extensively smashed than the anterior part. The cartilage covering the condyles is absolutely uninjured, but there is a crack in the anterior part of the intercondyloid space which runs from the edge of the internal condyle obliquely across to the inner margin of the external condyle. This crack extends through the bone, and appears to be the termination of the fracture which has splintered the shaft of the femur higher up. The right patella presents a star-shaped depressed fracture of its cartilaginous surface. The violence has been so great that the cartilage is torn and rent in all directions, and is driven into the superjacent cancellous tissue. The periosteal and fascial expansions, however, are not torn through except to a small extent at one spot, so that the fracture is only visible from the joint surface of the patella.

In the left femur there is an extensive comminuted fracture of the lower third of the shaft, with a T-fracture extending into the knee-joint and completely separating the two condyles, the irregular crack extending across its substance exactly along the line where the patella lies during flexion of the knee-joint. This crack corresponds very accurately to the raised line on the articular surface of the patella which separates the inner from the outer

facet. The conclusion, therefore, appears irresistible that the fissure in the condyle was the result of the wedge-like action of the patella, the force being so distributed that the patella itself escaped serious injury. On examination the left patella is seen to present a slight crushing of the cartilage into the cancellous tissue, the damage being confined to the lateral margins of the bone.

The point of interest about this case is that although the injury so far as can be ascertained was of precisely the same character in the two legs, yet the results are strikingly dissimilar. In the right knee the patella has sustained a very severe compound comminuted fracture, the force evidently acting from within, and therefore presumably the fracture was produced by the violent impact of the articular surface of the patella against the unyielding condyle of the femur. On the left side, however, the force has been so applied that the patella has acted as a wedge, and has split the condyle against which it was driven, itself receiving little or no damage.

April 15th, 1890.

*Knee-joints seventeen months after Ogston's operation.
(Card specimen.)*

By D'ARCY POWER.

THE left knee-joint seventeen months after the performance of Ogston's operation for the relief of genu valgum.

The right femur upon which the same operation was performed a few weeks subsequently, kindly lent by Mr. Gross, Medical Superintendent of St. Saviour's Infirmary, S.E.

The tibio-femoral articulation is more posterior than in a normal joint. The patella has only a single facet upon its under surface; it articulates solely with the external condyle of the femur to which it is bound down by a few slight adhesions.

The tibia and femur both present well-marked rickety curves. The articular surface of the internal condyle is very much smaller than that of the external condyle, although the inner condyle appears to be hypertrophied. It is united to the shaft of the femur by callus, and at its point of union with this bone there is an abrupt raised line, as if the base of the condyle had been pushed upwards on to the femur.

The condyles lie almost upon the same plane, the external being rather the lower of the two. The intercondyloid notch is very much increased in width, due apparently to a new formation of bone which has filled up a gap formed by the forcible separation of the condyles resulting from the operation.

The right femur exhibits changes of a similar nature. The bone has a marked antero-posterior curve. The articulating surface of the internal condyle is very small, and there is a line of union showing where it had reunited to the shaft of the femur. The external condyle is alone grooved for the patella.

From a patient aged 21, who died in December, 1884. Before the operation, in June, 1883, the distance between the internal malleoli when the knees were put together was nineteen and a half inches. After death the legs were nearly parallel.

The clinical details of this case will be found in the 'St. Bartholomew's Hospital Reports' for 1884.

The specimen is preserved in the St. Bartholomew's Hospital Museum, Series III, No. 807 (a).

February 4th, 1885.

True adenoma of the breast. (Card specimen.)

By D'ARCY POWER.

AN adenoma of the breast from a lady who was four months pregnant. The tumour had been noticed for five months. Three months before excision it appeared to be cystic, but it was afterwards found to be solid.

The father and father's mother died of cancer.

The tumour measures four inches by two and a half, and is divided into two unequal lobes of which the larger is roughly nodulated. It is completely encapsuled. On section it appears fibrous, but the recent specimen was pearly white and like freshly cut mammary gland.

Histologically the growth consists of a number of acini consisting of short tubes with lateral diverticula. The acini are scattered irregularly, each being separated from its neighbour by a small quantity of fibrous tissue, whilst towards the periphery the acini are more widely separated. The acini are well defined, each is lined by a layer of low columnar epithelium. The lumen of each acinus is occupied by polyhedral cells, which do not appear to have undergone any degenerative change.

The specimen is No. 3159 (A) in the St. Bartholomew's Hospital Museum.

February 17th, 1885.

